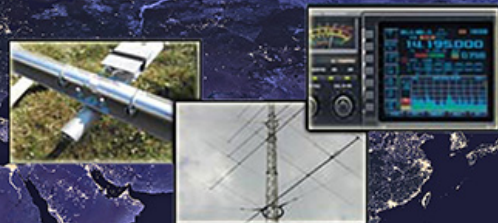




Repeater: NØDX 145.190 MHz (Input 144.590 / Tone 192.8 Hz)



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The Eastern Iowa DX Bulletin

Number 252, December 13, 2024

Craig Fastenow, KØCF, Editor

This bulletin is a compilation of **currently active** DX operations (or those that will become active within the current week) from recent issues of the three DX bulletins listed below and other sources. Credit for the source is given at the end of each article.

Articles are ordered by the entity's callsign prefix from the *ARRL DXCC Entities List*. Callsigns used are in **bold** with dates of operation highlighted in **red**. Clickable links are provided for QSL and other information wherever possible. Note that articles may be edited for grammar, language, style and accuracy and will remain in *The Bulletin* while active; articles that are announcements of ongoing operations, or that have no specified end date, will be removed after three weeks.

Also included is a [Propagation](#) section, updated daily; and a [Contest Calendar](#) of upcoming popular contests.

DX News items are courtesy of:

The ARRL DX Bulletin

The bulletin is available at <http://www.arrl.org>

425 DX News, A.R.I. DX Bulletin (425DXN)

Edited by Mauro Pregliasco, I1JQJ & Valeria Pregliasco, IK1ADH

425 DX News Home Page: <https://www.425dxn.org/>

425 DX News Google Group: <https://groups.google.com/g/425eng>

DX Newsletter (DXNL)

Edited by Andreas Salder, DK5ON

A weekly service of DARC Committee "DX", <http://www.darcdxhf.de>

Ohio-Penn DX Bulletin (OPDX)

Edited by Tedd Mirgliotta, KB8NW. Although OPDX is no longer published as a weekly bulletin, Tedd still sends DX news emails.

We will occasionally publish some of them.

Propagation data is from:

National Oceanic and Atmospheric Administration's

[Space Weather Prediction Center](#)

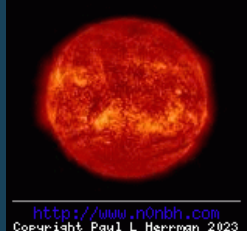
Dr. Tony Phillips' [SpaceWeather.com](http://www.SpaceWeather.com), used by permission

Contest data courtesy of the [WA7BNM Contest Calendar](#)



Solar-Terrestrial Data

14 Dec 2024 1808 GMT
 SFI: 164 SN: 81
 A-Index: 4
 K-Index: 1
 X-Ray: C3.1
 304A: 151.5 @ SEM
 Ptn Flx: 24
 Elc Flx: 2510
 Aurora: 5/n=1.99
 Mag (Bz): -7.9
 Solar Wind: 331.8
 Geomag Field VR QUIET
 Sig Noise Lvl S0-S1
 Current Solar Image



<http://www.nonbh.com>
 Copyright Paul L. Herrman 2023

DX News

4X, ISRAEL. In anticipation of Christmas, special event stations **4X8X** from the Latrun Monastery and **4X9X** from the Yardenit Baptismal Site will be active on **December 6th to 8th**. They will be followed by **4X7X** from the Abbey of the Dormition on **December 20th to 22nd**. A certificate will be available:

<https://www.iarc.org/xmas2024>. QSL all calls via [4X6ZM](#).

-[425DXN # 1752 November 30, 2024] (1206-1227)

5R, MADAGASCAR. Eric, F6ICX is active again as **5R8IC** from Sainte-Marie Island (AF-090), Madagascar **until the end of the year**. He will operate mainly CW on 40-10 meters; during the last two weeks of December he will also be QRV on the QO-100 satellite. QSL via LoTW, [ClubLog's OQRS](#), or via [F6ICX](#).

-[425DXN # 1742 September 21, 2024] (0927-0103)

8Q, MALDIVES. David, HB9ILL will be QRV as **8Q7IL** from **December 9th to 18th**. Activity will be on 40, 30, 20, and 10 meters using SSB. QSL to [HB9ILL](#).

-[ARRL DX Bulletin # 45 December 5, 2024] (1206-1220)

9A, CROATIA. Promoting IARU Region 1's Program for Disabled Radio Amateurs, members of the Croatian Amateur Radio Association (HRS) will activate special call signs **9A24PDRA**, **9A24PD** and **9A24D** starting on **December 3rd** (the International Day of Persons with Disabilities) **until the end of the year**. QSOs will be uploaded to LoTW, ClubLog and QRZ Logbook.

-[425DXN # 1753 December 7, 2024] (1206-1227)

A4, OMAN. Special event station **A43QAT** is QRV to mark Qatar's National Day. QSL via [EC6DX](#).

-[ARRL DX Bulletin # 46 December 12, 2024] (1213-0103)

A6, UNITED ARAB EMIRATES. Special event station **A6ØBHR** will be QRV from **December 11th to 16th** to honor Bahrain's National Day. QSL via [EA7FTR](#).

-[ARRL DX Bulletin # 45 December 5, 2024] (1206-1220)

A7, QATAR. Special event station **A71QND** marks Qatar's National Day (December 18th) from **December 12th to 18th**; separate stations also sign **A71QND/Ø** to **/15**. Qatar's radio amateurs will be joined in their celebration on the air by **A6ØQATAR**, **HZ1QATAR**, **9K9QATAR**, and **A43QAT**. QSL A71QND only via [A71QND](#).

-[DXNL # 2436 December 11, 2024] (1213-1220)

A9, BAHRAIN. Celebrating the Kingdom of Bahrain's National Day, the Bahrain Amateur Radio Society will be active as **A91ND** on **December 1st-16th**. Also taking part in the celebrations will be the Emirates Amateur Radio Society as **A6ØBHR** on **December 11th-16th** (individual operators may append a serial number to the special call sign), and possibly the Saudi Amateur Radio Society as **HZ1BHR**, the Kuwait Amateur Radio Society as **9K9BHR**, and the Royal Omani Amateur Radio Society as **A43BHR**. QSL A91ND via [EC6DX](#).

-[425DXN # 1752 November 30, 2024] (1129-1220)

CE9, ANTARCTICA. Oleg ZS1ANF (ex UA1PBA) will be active during his spare time as **ZS7ANF** from Wolf's Fang Runway (AN-016). QRV mostly on CW on 40-10m **until February 2025**. QSL via [DL5EBE](#) or [RK1PWA](#), LoTW.

-[DXNL # 2436 December 11, 2024] (1213-0103)

CN, MOROCCO. Ralf, DB4REB will be active as **CN2REB** while vacationing in Morocco from **November 30th to January 30, 2025**. He plans to operate CW, FT8 and SSB on various bands from Agadir and some POTA sites along the coast. See <https://www.qrz.com/db/CN2REB> for updates. QSL via eQSL, or [DB4REB](#).

-[425DXN # 1751 November 23, 2024] (1129-0131)

DU, PHILIPPINES. Hannes, OE1SGU/OE3SGU will be active as **DU1OE** from Luzon Island (OC-042), Philippines on **December 10th-27th**. He will be QRV on 40-6 meters all modes. QSL via [ClubLog's OQRS](#), LoTW and eQSL.

-[425DXN # 1753 December 7, 2024] (1206-1227)

DXCC TOP TWENTY. Here are the top 20 entities on ClubLog's "DXCC Most Wanted" list as of December 13, 2024:

1. P5	DPRK (North Korea)	11. ZS8	Prince Edward & Marion Islands
2. BS7H	Scarborough Reef	12. KH4	Midway Island
3. CEØX	San Felix Islands	13. VKØM	Macquarie Island
4. BV9P	Pratas Island	14. PYØS	Saint Peter And Paul Rocks
5. KH7K	Kure Island	15. KP5	Desecheo Island
6. KH3	Johnston Island	16. VPØS	South Sandwich Islands

7. 3Y/P	Peter 1 Island	17. ZL9	New Zealand Subantarctic Islands
8. FT5/X	Kerguelen Island	18. FK/C	Chesterfield Islands
9. YVØ	Aves Island	19. VKØH	Heard Island
10. 3Y/B	Bouvet Island	20. FT/T	Tromelin Island

For the complete list, see <https://clublog.org/mostwanted.php>

-[KØCF December 13, 2024] (1213-0103)

E7, BOSNIA-HERZEGOVINA. Special event station **E71YOTA** is QRV during the month of December during the Youth On The Air operating event. QSL via [ClubLog's OQRS](#).

-[ARRL DX Bulletin # 45 December 5, 2024] (1206-0103)

EA, SPAIN. The HamRadioDX.es club runs a Christmas special event until December 25th with the callsign **EG7FN**, including short-term awards. For more information see [EG7FN](#).

-[DXNL # 2436 December 11, 2024] (1213-1227)

EA6, BALEARIC IS. Josep, EA6BF will be QRV as **EF6B** in the ARRL 10 Meter contest (December 14th-15th). QSL to [EA6BF](#).

-[ARRL DX Bulletin # 46 December 12, 2024] (1213-1220)

FO, FRENCH POLYNESIA. Unless physical conditions prevent him from travelling, Nobu, JAØJHQ will be QRV as **TX5NH** from Tahiti (OC-046), French Polynesia on December 13th-16th, with main activity during the ARRL 10-Meter Contest (December 14th-15th). QSL via LoTW, or direct to [JAØJHQ](#).

-[425DXN # 1754 December 14, 2024] (1213-1220)

FR, REUNION I. Thomas, DJ2TG is QRV as **FR/DJ2TG** until December 23rd. Activity is on 30 meters and up using SSB and FT8. QSL to [DJ2TG](#).

-[ARRL DX Bulletin # 46 December 12, 2024] (1213-0103)

HL, SOUTH KOREA. Special event station **HLØYOTA** is QRV during the month of December during the Youth On The Air operating event. QSL via [ClubLog's OQRS](#).

-[ARRL DX Bulletin # 45 December 5, 2024] (1206-0103)

HZ, SAUDI ARABIA. Special event station **HZ1QATAR** is QRV to mark Qatar's National Day. QSL via [EC6DX](#).

-[ARRL DX Bulletin # 46 December 12, 2024] (1213-0103)

I, ITALY. The 4U1GSC Amateur Radio Club will use special callsign **4U3ØB** to mark the 30th anniversary of the United Nations Global Service Centre in Brindisi, Italy. Look for activity from November 15th to December 31st. QSL via [9A2AA](#).

-[425DXN # 1747 October 26, 2024] (1115-1227)

I, ITALY. Celebrating the 100th anniversary of the start of regular radio broadcasting in Italy (October 6, 1924), ARI local branches across Italy are using special callsigns until December 29th. The callsigns will be in the format **II#Rxyz** (e.g. II9RCAT for ARI Catania) and **IR#Rxyz** (e.g. IR1RVDB for ARI Valbormida). In addition, special event station **I1MRTV** will be active from the RAI Radio and Television Museum in Torino. Certificates and electronic QSLs will be available for download from the HamAward platform (direct link from each special callsign's qrz.com page).

-[425DXN # 1743 September 28, 2024] (0927-1227)

JA, JAPAN. Take, JI3DST will be active again as **JS6RRR** from Miyako Island (AS-079) from December 4th to March 31st, 2025. Other callsigns to be used include **JI3DST/6**, **JJ5RBH/6**, **JR8YLY/6** and **JS6RRR/6**, as well as **JI3DST/p**, **JJ5RBH/p**, **JR8YLY/p** and **JS6RRR/p** on FT8. QSOs will be made available for ClubLog Matching on the IOTA website. QSLs via [ClubLog's OQRS](#).

-[425DXN # 1752 November 30, 2024] (1129-1220)

KH9, WAKE I. Currently stationed on Wake Island (OC-053), Allen, KH7AL is active as **KH7AL/KH9** in his spare time. He operates SSB and some CW on 40, 30, 20, 17, 15 and 10 meters. Next planned activity: December 15th at 1930 UTC on 10m SSB. He keeps an "Activation Blog" and an "Upcoming" section on <https://sites.google.com/view/kh7al/>. QSL via [KH7AL](#).

-[425DXN # 1754 December 14, 2024] (1213-1227)

LY, LITHUANIA. Special callsign **LY24XMAS** will be active **throughout December**. LY2QT offers a commemorative coin for 10 QSOs with special event stations carrying an XMAS or HNY suffix; one QSO with LY24XMAS is obligatory and 5 Euro for covering postage; send your application to LY2QT, ly2qt.wal@gmail.com. QSL LY24XMAS via [LY2QT](#).
-[DXNL # 2435 December 4, 2024] (1206-0103)

OH, FINLAND. Once again Santa Radio, **OF9X** (Old Father Nine Xmas) will be active on **December 13th-31st** on 160-6 meters CW, SSB and FT8. QSL via Club Log's OQRS, or via OH2BH. Each operator will send his suffix as part of the report (e.g. 599BH for Martti, OH2BH). You can contact a maximum of 16 Santa operators on a variety of bands and modes, which makes up your Santa total score. This time the score card is reported on <https://www.qrz.com/db/OF9X>. The Santa Radio operators are:

Rami	OH2BCI (BCI)	Juha	OH2LQ (LQ)
Martti	OH2BH (BH)	Pekka	OH2TA (TA)
Davide	OH2BLS (BLS)	Henri	OH3JR (JR)
Era	OH2CV (CV)	Pauli	OH5BQ (BQ)
Arttu	OH2FB (FB)	Alex	OH5UY (UY)
Jorma	OH2KI (KI)	Reijo	OH7GGX (GGX)
Jyri	OH2KM (KM)	Tero	OH7WP (WP)
Arto	OH2KW (KW)	Esa	OH7WV (WV)

-[425DXN # 1754 December 14, 2024] (1213-0103)

OH, FINLAND. Celebrating the Christmas Holiday Season, the OH9A team is once again active as **OG1XMAS** on all bands and modes on **December 1st-24th**. QSL via LoTW (preferred), [ClubLog's OQRS](#), or [OH1NOA](#).
-[425DXN # 1753 December 7, 2024] (1206-1227)

ON, BELGIUM. Members of UBA Section Bruxelles-Est (ON5UB) are QRV as **OR8ØNUTS** on **December 13th-15th** to commemorate the 80th anniversary of the Battle of the Bulge during World War II. The suffix of the special callsign is General Anthony C. McAuliffe's famous single-word reply in response to a surrender ultimatum. QSL via operators' instructions.
-[425DXN # 1753 December 7, 2024] (1213-1220)

ON, BELGIUM. The radio club Verviers (ON4GDV) commemorates the 80th anniversary of Belgium's liberation and the Battle of the Bulge until the end of the year with the callsign **OR8ØUSA**. QSL via [ON4GDV](#).
-[DXNL # 2436 December 11, 2024] (1213-0103)

ON, BELGIUM. Special event station **OQ24YOTA** is QRV during the **month of December** during the Youth On The Air operating event. QSL via [ClubLog's OQRS](#).
-[ARRL DX Bulletin # 45 December 5, 2024] (1206-0103)

PA, NETHERLANDS. Celebrating Christmas and the New Year, special callsign **PH24XMAS** will be active on **December 6th-28th**, followed by **PH25HNY** from **December 28th to January 5th**. Paper QSL cards will not be provided.
-[425DXN # 1752 November 30, 2024] (1206-0110)

PA, NETHERLANDS. Barry, PC1K will be active as **PC24XMAS** in **December**. A certificate will be downloadable from <https://pc1k.nl/xmas> "immediately after making a QSO". QSL via [PC1K](#), LoTW, or QRZ Logbook.
-[425DXN # 1752 November 30, 2024] (1129-0103)

PA, NETHERLANDS. Celebrating Christmas and the New Year, special callsigns **PA24XMAS**, **PD24ELF** and **PI24XMAS** will be active on **December 1st-31st**, while **PD25HNY** will be QRV from **December 24th until January 31st**. See <https://www.qrz.com/db/PI24XMAS> for a certificate. QSL cards will not be issued.
-[425DXN # 1751 November 23, 2024] (1129-0103)

PACIFIC TRIP. Hardy, DL7JLL will be active as **FO/DL7JLL** from Mangareva (OC-063), French Polynesia and as **VP6JLL** from Pitcairn Island (OC-044) from **December 18th to January 15th**. He will

operate SSB only on 20, 15 and 10 meters. QSL via [DL7JLL](#).
-[425DXN # 1754 December 14, 2024] (1213-0117)

PJ7, SINT MAARTEN. Ed, N2HX, plans to put Sint Maarten (NA-105) on the air from **October 20th to December 27th** as **PJ7PL**, including the CQ WW DX SSB Contest (October 26th-27th), the CQ WW DX CW Contest (November 23rd-24th) and ARRL 10-Meter Contest (December 14th-15th). QSL via [N2HX](#).
-[DXNL # 2428 October 16, 2024] (1018-1227)

PY, BRAZIL. The Bicho do Mato DX Team celebrates its 10th anniversary with the callsign **ZV2BM** **throughout December**. QSL via bureau, LoTW, eQSL.
-[DXNL # 2435 December 4, 2024] (1206-0103)

S2, BANGLADESH. Team **S21DX** will be active again from Dal Char Island (AS-140) on **December 13th-19th**. Plans are to be QRV on 160-10 meters for at least 20 hours a day with two stations for SSB/FT8 (F/H), one for FT8 F/H and one for RTTY. QSOs will be uploaded to LoTW and ClubLog. See <https://s21dx.org/> for more information, as well as <https://www.facebook.com/s21dx> for updates. QSL via [EB7DX](#), [ClubLog's OQRS](#), LoTW.
-[425DXN # 1751 November 23, 2024] (1213-1220)

S5, SLOVENIA. Special event station **S525PMC** will be active from **December 5th to January 5th** to promote the PMC Contest, sponsored by the Radio Club Slovenj Gradec (S59DCD). The International Association of Peace Messenger Cities was established in 1988 to recognize and encourage the role and responsibility cities have in creating a culture of peace. The PMC Contest, promoting contacts between stations located in the Peace Messenger Cities and the rest of the world, will be held on January 4th-5th. Complete information can be found on <https://www.s59dcd.si/index.php/sl/www-pmc/www-pmc-contest-rules>. QSL via eQSL.
-[425DXN # 1753 December 7, 2024] (1206-0103)

SP, POLAND. Celebrating Christmas and the New Year, special callsigns **HFØCLAUS** and **SPØCLAUS** will be active from **December 6th to January 6th**. QSL via the bureau, eQSL, or direct to Dariusz Florczyk, ul. Kozminska 35, 63-330 Dobrzyca, Poland.
Other special callsigns for the festive season include **3ZØXMAS** (Poland), **EG7FN** (Spain, **December 10th-25th**), **I12XMAS** (Italy, **November 29th-January 6th**), **LY24XMAS** (Lithuania, **December 1st-31st**), **OE65XMAS** (Austria, **December 20th-January 6th**), **OZ4XMAS** (Denmark), **PD2Ø25HNY** (Netherlands, **December 23rd-31st**), **TM2Ø24MC** (France), **VK6SANTA** (Australia, **December 1st-24th**), **YR8XMAS** (Romania, **December 1st-January 5th**). See their qrz.com pages for more information.
-[425DXN # 1753 December 7, 2024] (1206-0103)

SU, EGYPT. Special event station **SU8YOTA** is QRV during the **month of December** during the Youth On The Air operating event. QSL via [ClubLog's OQRS](#).
-[ARRL DX Bulletin # 45 December 5, 2024] (1206-0103)

V3, BELIZE. Mike, VE7ACN will be QRV as **V31CN** from Manta Island on Glover's Reef (NA-180) from **December 8th to 17th**. Activity will be on 80 to 20 meters using mainly CW, with some SSB and FT8. QSL via ClubLog's OQRS, LoTW, or [VE7ACN](#).
-[ARRL DX Bulletin # 45 December 5, 2024] (1206-1220)

V4, ST. KITTS & NEVIS. Jim, NT5V will be active holiday style as **V47V** from St. Kitts (NA-104) on **December 11th-18th**. He will operate mostly SSB and FT8 on 40-10 meters. QSL via LoTW, or via [NT5V](#).
-[425DXN # 1753 December 7, 2024] (1206-1220)

V4, ST. KITTS & NEVIS. Mike, KC1NGS is QRV as **V47NH** from Nevis (NA-104) **until December 17th**. Activity is on 40 to 10 meters using SSB. QSL via LoTW.
-[ARRL DX Bulletin # 45 December 5, 2024] (1206-1220)

VP2V, BRITISH VIRGIN IS. AG9A, K2KW, K5PI and KD4D will be QRV as **VP2V/home calls** from Anegada (NA-023) from **December 9th to 17th**. Activity will be on the HF bands using CW, SSB and

possibly various digital modes. This includes being an entry as **VP2VMM** in the upcoming ARRL 10 Meter contest (December 14th–15th). QSL via LoTW, [KU9C](#).

-[ARRL DX Bulletin # 45 December 5, 2024] (1206-1220)

VP5, TURKS & CAICOS IS. A group of operators will be QRV as **VP5V** in the ARRL 10 Meter contest (**December 14th-15th**). QSL via LoTW.

-[ARRL DX Bulletin # 46 December 12, 2024] (1213-1220)

VU, INDIA. Special event station **AT24HFI** is QRV **until December 16th** during the hamfest in Kolkata. For more information see: <https://www.hfi24.in>. QSL via operators' instructions.

-[ARRL DX Bulletin # 46 December 12, 2024] (1213-1220)

YJ, VANUATU. Chris, VK2YUS will be active again as **YJØCA** from Port Vila (OC-035) Vanuatu from **December 10th to 16th**, including an entry in the ARRL 10 Meter Contest (December 14th-15th). He will operate SSB on 40-10 meters, typically between 2100 UTC and 1000 UTC. He does not use LoTW or ClubLog; QSL direct to [VK2YUS](#).

-[425DXN # 1753 December 7, 2024] (1206-1220)

YL, LATVIA. Special event station **YL24YOTA** is QRV during the **month of December** during the Youth On The Air operating event. QSL via [ClubLog's OQRS](#).

-[ARRL DX Bulletin # 45 December 5, 2024] (1206-0103)

ZD7, ST. HELENA. Derek, **ZD7CTO** has been active on 40 meters using FT8 between 0300 and 0400z. QSL direct to [ZD7CTO](#).

-[ARRL DX Bulletin # 46 December 12, 2024] (1213-0103)

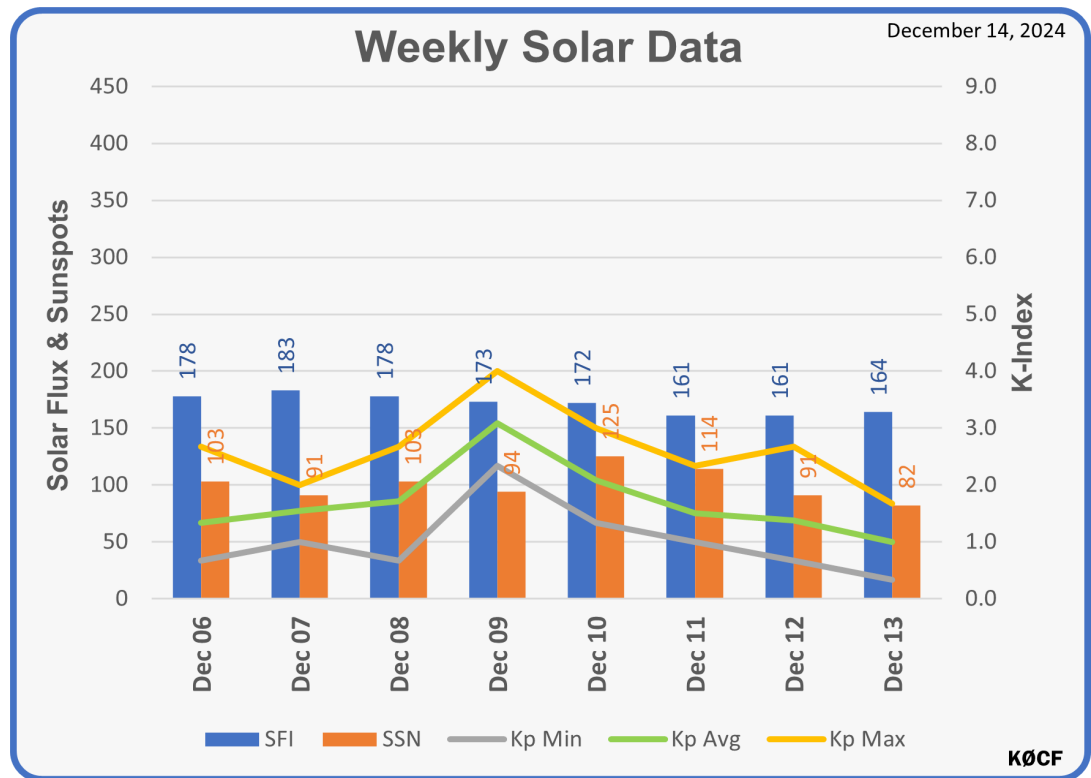
ZF, CAYMAN IS. Vicky, AE9YL and Carl, K9LA are QRV as **ZF2YL** and **ZF2LA**, respectively. They plan to be active in the ARRL 10 Meter contest (**December 14th-15th**). QSL ZF2YL via [AE9YL](#) and ZF2LA via [K9LA](#).

-[ARRL DX Bulletin # 46 December 12, 2024] (1213-1220)

ZL, NEW ZEALAND. Special event station **ZM1ØØDX** will be QRV from **September 29th to December 26th** to celebrate the very first trans-world QSO between Z4AA and G2SZ. Activity will be on 160 to 6 meters using all modes. In addition, special event station **ZL4AA** will also be active for this event. QSL via operators' instructions.

-[ARRL DX Bulletin # 36 September 26, 2024] (0927-1227)

Propagation (Updated daily)



The Weekly Solar Data chart plots Solar Flux Index (SFI), Sunspot number (SSN) and Planetary K-Index (Kp) for the past 8 days. With 8 Planetary K-index readings each day, only the minimum, average and maximum K-index values are plotted. **Note:** You may click [here](#) or on the chart above to see the same data for the past month.

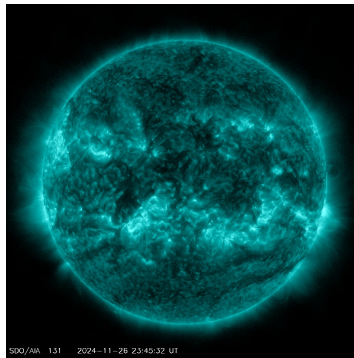
The Daily Solar Flux Index, Sunspot number, Planetary K-index, Solar Flux predictions and Solar Flare data used in this bulletin have been collected by KØCF from the U.S. Department of Commerce's NOAA Space Weather Prediction Center.

The propagation graphs above are the creations of KØCF and are unique in space weather reporting.

Please Note: The graphs are high resolution .PNG files which you may view in greater detail using your browser's "zoom" feature. Alternatively, right click on the graph and select "Open Image in New Tab" to enlarge it, or "Save Image As..." to save it to your computer for further analysis.

NASA's current view of the Sun at a wave-length of 131 Angstroms. This wavelength shows incredible solar detail.

Click [here](#) or on the image to view as a full screen 48-hour video loop. It is fascinating!



Propagation Summary

For the 8 day period from Friday, December 6th through yesterday, December 13th.

The average solar flux was 170, down 14 points from the previous week, with a weekly high of 183 on Saturday, December 7th, followed by a low of 161 on December 12th.

The average sunspot count was 100, down by 5 from last week, peaking at 125 on Tuesday, December 10th followed by a weekly low of 82 on December 13th.

The Planetary K-index weekly average was 2.6 with a maximum of 4.0 on Monday, December 9th, resulting in generally quiet geomagnetic conditions. Yesterday's K-index maximum was 1.7 with generally quiet conditions.

Solar flare activity since December 7th has been high with 13 major flares, the largest of which was a major X 2.2 event on Sunday, December 8th.

Propagation Data

Major solar flares, Saturday, December 7th through 1431 UTC, December 14th.

#	Date	UTC	Mag.
1	Dec 13	1124	M 2.0
2	Dec 12	2107	M 1.6
3	Dec 12	1743	M 2.2
4	Dec 11	1549	M 6.7
5	Dec 11	1006	M 2.8
6	Dec 11	0604	M 2.0
7	Dec 10	1758	M 1.6
8	Dec 10	1102	M 1.5
9	Dec 10	0648	M 6.4
10	Dec 08	1611	M 1.5
11	Dec 08	0906	X 2.2
12	Dec 07	2215	M 3.2
13	Dec 07	1308	M 2.3

(NOAA's graph of recent flare activity: [GOES-X-Ray-Flux](#))

From the NOAA Space Weather Prediction Center, here are the probabilities of major solar flares and the predicted 10.7 cm Solar Flux for the next 3 days. NOAA updates this information daily.

Date	M-Flares	X-Flares	Solar Flux
Dec 14	55%	5%	165
Dec 15	55%	5%	165
Dec 16	55%	5%	170

Looking farther ahead, here is the NOAA Space Weather Prediction Center forecast of 10.7 cm radio flux and maximum Planetary K-index (Kp) for the next 12 days. This data is updated by NOAA every Monday (last updated on December 9, 2024).

Date	Flux	Kp
Dec 14	180	3
Dec 15	170	2
Dec 16	170	3
Dec 17	175	3

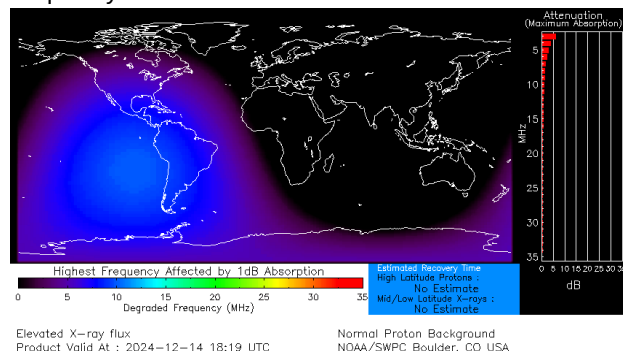
Date	Flux	Kp
Dec 18	175	3
Dec 19	175	4
Dec 20	175	3
Dec 21	185	2

Date	Flux	Kp
Dec 22	190	2
Dec 23	185	2
Dec 24	185	2
Dec 25	180	2

Global D Region Absorption

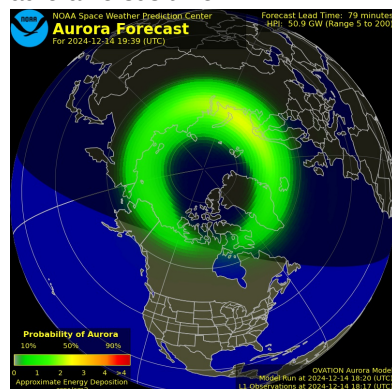
Conditions in the D-region of the ionosphere have a dramatic effect on HF communications. The D-

Region Absorption map combines the effects of solar particles and photons. Yellow to red colors on the map depict increasing signal attenuation, where the bar chart at the right displays attenuation versus frequency. Click the thumbnail below for an animated map of D-Region Absorption:



The Aurora Borealis

The aurora is not only beautiful to see but can have a profound impact on HF and VHF radio propagation. For the HF operator, auroras can result in a complete shut-down of propagation. However, on VHF, auroras present interesting DX possibilities. Beam antennas are very desirable and should be pointed north, towards the aurora. Signals are reflected by "back-scatter" and will be distorted with a rough buzz. SSB is the best voice mode to use, but copy can be difficult. CW will have a rough buzzy sound but be perfectly copyable. Click the thumbnail below for an animated map of aurora versus time:



Highs for Cycle 25

Solar Flux: 336 on August 8, 2024.

Sunspots: 382 on August 10, 2024.

Chance of Flares This Weekend

The sun is crackling with [M-class](#) solar flares. There were five of them yesterday, none stronger than M2. This kind of low-level M-class flaring keeps Earth's upper atmosphere in an enhanced state of ionization without actually causing a major space weather event. NOAA forecasters say there is a 50% chance of more M-flares during the next 24 hours.

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Popular Propagation web sites

<https://prop.kc2g.com/> (Excellent Maximum Usable Frequency map)

NOAA <https://www.swpc.noaa.gov/>

<https://www.spaceweather.com/>

<https://www.solarham.com/>

<https://dx.gsl.net/propagation/>

A Propagation Tutorial

The solar X-ray flux tracks solar activity and solar flares. Solar flux, which can vary from as low as 50 to as high as 300, influences the level of ionization in the F2 region of the ionosphere, providing a very good prediction of HF DX conditions. The higher the solar flux, the better conditions will be for the higher HF frequencies and even 6 meters. However, the levels need to be maintained for some days to

allow ionization in the F2 layer to build up. A solar flux of 150 results in good HF band conditions, while levels of 200 and up can provide great conditions.

Large X-ray flares on the sun can increase the ionization of the D layer of the ionosphere (a lower layer) on the sunlit side of the Earth, greatly attenuating or blocking HF radio transmissions for up to a half hour. Solar flares often produce Coronal Mass Ejections (CMEs) which, if Earth directed, can lead to geomagnetic storms. Some large flares are also accompanied by strong radio bursts that may interfere with other radio frequencies and cause problems for satellite communication and radio navigation (GPS).

The Planetary K-index is a measure of the magnitude of geomagnetic storms and is an excellent indicator of disturbances in the Earth's magnetic field. A level of 1 or 2 represents quiet geomagnetic conditions; a reading of 3 or 4 may cause some propagation deterioration; 5 and 6 are minor to moderate geomagnetic storms; and 7 to 9 are strong, severe, and extreme storm conditions. Strong geomagnetic storms can trigger Auroral displays and cause HF radio blackouts. Higher geomagnetic activity also has the adverse effect of lowering maximum usable frequencies, much like lower solar flux does.

For best conditions, the solar flux should be above 150 for a few days with the K index below 2. When these conditions are met, some good DX is likely!
-[Compiled from information on NOAA.gov and other sources]

Contest Calendar

Weekly Contests

Contest	Start UTC		End	Web Site
K1USN Slow Speed Test	Monday	0000Z	0100Z	Rules
ICWC Medium Speed Test	Monday	1300Z	1400Z	Rules
	Monday	1900Z	2000Z	
	Tuesday	0300Z	0400Z	
CWops Test (CWT)	Wednesday	1300Z	1400Z	Rules
	Wednesday	1900Z	2000Z	
	Thursday	0300Z	0400Z	
	Thursday	0700Z	0800Z	
Weekly RTTY Test	Friday	0145Z	0215Z	Rules
NCCC CW Sprint (NS)	Friday	0230Z	0300Z	Rules

Note: Start Days are in UTC, e.g. Monday at 0000 UTC is Sunday at 7:00 PM in the Central Daylight Saving Time zone, or Sunday at 6:00 PM in the Central Standard Time zone.

Full Calendar

Contest	Start		End		Web Site
ARRL 10-Meter Contest	Dec 14	0000Z	Dec 15	2359Z	Rules
OK DX RTTY Contest	Dec 21	0000Z	Dec 21	2400Z	Rules
Croatian DX Contest	Dec 21	1400Z	Dec 22	1400Z	Rules
ARRL Rookie Roundup, CW	Dec 22	1800Z	Dec 22	2359Z	Rules

RAC Winter Contest	Dec 28	0000Z	Dec 28	2359Z	Rules
Stew Perry Topband Challenge	Dec 28	1500Z	Dec 29	1500Z	Rules
ARRL RTTY Roundup	Jan 4	1800Z	Jan 5	2400Z	Rules
ARRL Kids Day	Jan 4	1800Z	Jan 4	2359Z	Rules
YB DX Contest	Jan 11	0000Z	Jan 11	2359Z	Rules
North American QSO Party, CW	Jan 11	1800Z	Jan 12	0600Z	Rules
Hungarian DX Contest	Jan 18	1200Z	Jan 19	1200Z	Rules
North American QSO Party, SSB	Jan 18	1800Z	Jan 19	0600Z	Rules
ARRL January VHF Contest	Jan 18	1900Z	Jan 20	0359Z	Rules
CQ 160-Meter Contest, CW	Jan 24	2200Z	Jan 26	2159Z	Rules
BARTG RTTY Sprint	Jan 25	1200Z	Jan 26	1200Z	Rules
Winter Field Day	Jan 25	1700Z	Jan 26	1700Z	Rules
Vermont QSO Party	Feb 1	0000Z	Feb 2	2400Z	Rules
10-10 Int. Winter Contest, SSB	Feb 1	0001Z	Feb 2	2359Z	Rules
Mexico RTTY International Contest	Feb 1	1200Z	Feb 2	2359Z	Rules
Minnesota QSO Party	Feb 1	1400Z	Feb 1	2400Z	Rules
British Columbia QSO Party	Feb 1	1600Z	Feb 2	2400Z	Rules
North American Sprint, CW	Feb 2	0000Z	Feb 2	0359Z	Rules
CQ WW RTTY WPX Contest	Feb 8	0000Z	Feb 9	2400Z	Rules
ARRL School Club Roundup	Feb 10	1300Z	Feb 14	2359Z	Rules
ARRL Inter. DX Contest, CW	Feb 15	0000Z	Feb 16	2400Z	Rules
CQ 160-Meter Contest, SSB	Feb 21	2200Z	Feb 23	2159Z	Rules
South Carolina QSO Party	Feb 22	1500Z	Feb 23	0159Z	Rules
North American QSO Party, RTTY	Feb 22	1800Z	Feb 23	0600Z	Rules
North Carolina QSO Party	Feb 23	1500Z	Feb 24	0100Z	Rules
ARRL Inter. DX Contest, SSB	Mar 1	0000Z	Mar 2	2400Z	Rules
Open Ukraine RTTY Championship	Mar 1	1800Z	Mar 2	1359Z	Rules
YB DX RTTY Contest	Mar 8	0000Z	Mar 8	2359Z	Rules
Oklahoma QSO Party	Mar 8	1400Z	Mar 9	2100Z	Rules
Stew Perry Topband Challenge	Mar 8	1500Z	Mar 9	1500Z	Rules
Idaho QSO Party	Mar 8	1900Z	Mar 9	1900Z	Rules
North American Sprint, RTTY	Mar 9	0000Z	Mar 9	0359Z	Rules
Wisconsin QSO Party	Mar 9	1800Z	Mar 10	0100Z	Rules
BARTG HF RTTY Contest	Mar 15	0200Z	Mar 17	0200Z	Rules
Russian DX Contest	Mar 15	1200Z	Mar 16	1200Z	Rules
Virginia QSO Party	Mar 15	1400Z	Mar 16	2400Z	Rules

-[Contest data courtesy of the [WA7BNM Contest Calendar](#)]